

CLAIMS

What is claimed is:

1. A method of distributing data to a plurality of recipients associated with a corresponding plurality of recipient accounts, comprising the steps of:
 - 5 associating a plurality of classes arranged in a class hierarchy with the plurality of recipient accounts;
 - associating a plurality of data sets with the plurality of classes and the plurality of recipient accounts;
 - creating a plurality of recipient data sets by associating each data set associated with a class to each recipient account associated with the class so that each recipient data set includes only data sets associated with each corresponding recipient account;
 - 10 and
 - distributing the plurality of recipient data sets to the corresponding plurality of recipients.
2. The method of claim 1, wherein the step of associating a plurality of classes arranged in a class hierarchy with the plurality of recipient accounts comprises the step of arranging the plurality of classes in a parent-child relationship.
3. The method of claim 2, wherein the step of associating a plurality of data sets with the plurality of classes and the plurality of recipient accounts comprises the steps of:
 - 20 associating a data set with a parent class; and
 - associating the data set associated with the parent class with a related child class.
4. The method of claim 3, wherein the step of creating a plurality of recipient data sets by associating each data set associated with a class to each recipient account associated with the class so that each recipient data set includes only data sets associated each corresponding recipient account comprises the step of associating each data set associated with a child class to each recipient account associated with the child class.
5. The method of claim 1, further comprising the steps of:
 - 30 defining an event; and
 - distributing the plurality of recipient data sets to the corresponding plurality of recipients upon an occurrence of the event.

6. The method of claim 4, further comprising the steps of:
defining an event; and
distributing the plurality of recipient data sets to the corresponding plurality of recipients upon an occurrence of the event.

5 7. The method of claim 1, further comprising the steps of:
defining a distribution frequency threshold;
determining a distribution frequency for one of the data sets; and
automatically associating the data set if the distribution frequency of the data set exceeds the distribution frequency threshold.

10 8. The method of claim 7, wherein the step of determining a distribution frequency for one of the data sets comprises the steps of determining the number of times the data set is distributed to a particular recipient over a period of time.

9. The method of claim 8, wherein the step of automatically associating the data set if the distribution frequency of the data set exceeds the distribution
15 frequency threshold comprises the steps of:

comparing the distribution frequency of the data set to the distribution frequency threshold; and

associating the data set to a recipient account corresponding to the particular recipient.

20 10. The method of claim 1, wherein the step of distributing the plurality of recipient data sets to the corresponding plurality of recipients comprises the steps of:
compressing each of the recipient data sets;
sending the plurality of recipient data sets to the corresponding plurality of recipients over a computer network; and

25 disassociating the plurality of data sets with the plurality of classes and the plurality of recipient accounts.

11. A system for distributing data to a plurality of recipients associated with a corresponding plurality of recipient accounts, comprising:

30 means for associating a plurality of classes arranged in a class hierarchy with the plurality of recipient accounts;

means for associating a plurality of data sets with the plurality of classes and the plurality of recipient accounts;

means for creating a plurality of recipient data sets by associating each data set associated with a class to each recipient account associated with the class so that each recipient data set includes only data sets associated with each corresponding recipient account; and

5 means for distributing the plurality of recipient data sets to the corresponding plurality of recipients.

12. The system of claim 11, wherein the means for associating a plurality of classes arranged in a class hierarchy with the plurality of recipient accounts comprises means for arranging the plurality of classes in a parent-child relationship.

10 13. The system of claim 12, wherein the means for associating a plurality of data sets with the plurality of classes and the plurality of recipient accounts comprises:

means for associating a data set with a parent class; and

15 means for associating the data set associated with the parent class with a related child class.

14. The system of claim 13, wherein the means for creating a plurality of recipient data sets by associating each data set associated with a class to each recipient account associated with the class so that each recipient data set includes only data sets associated each corresponding recipient account comprises means for associating each
20 data set associated with a child class to each recipient account associated with the child class.

15. The system of claim 11, further comprising:
means for defining an event; and
means for distributing the plurality of recipient data sets to the corresponding
25 plurality of recipients upon an occurrence of the event.

16. The system of claim 14, further comprising:
means for defining an event; and
means for distributing the plurality of recipient data sets to the corresponding
plurality of recipients upon an occurrence of the event.

30 17. The system claim 11, further comprising:
means for defining a distribution frequency threshold;
means for determining a distribution frequency for one of the data sets; and

means for automatically associating the data set if the distribution frequency of the data set exceeds the distribution frequency threshold.

18. The method of claim 17, wherein the means for automatically associating the data set if the distribution frequency of the data set exceeds the distribution frequency threshold comprises:

means for comparing the distribution frequency of the data set to the distribution frequency threshold; and

means for associating the data set to a recipient account corresponding to the particular recipient.

19. The method of claim 11, wherein the means for distributing the plurality of recipient data sets to the corresponding plurality of recipients comprises:

means for compressing each of the recipient data sets;

means for sending the plurality of recipient data sets to the corresponding plurality of recipients over a computer network; and

- means for disassociating the plurality of data sets with the plurality of classes and the plurality of recipient accounts.

20. An apparatus for distributing data to a plurality of recipients corresponding to a plurality of recipient accounts, the apparatus comprising:

a computer storage medium storing a data structure and a program;

- a computer system having access to the computer storage medium and configured to execute the application program;

wherein the data structure includes a plurality of classes arranged in a class hierarchy, and further includes the plurality of recipient accounts associated with the plurality of classes; and

- wherein the program associates data sets to selected classes and selected recipient accounts, creates a plurality of recipient data sets by associating data sets associated with a selected class to the recipient accounts associated with the selected class so that each recipient data set includes only data sets associated with each corresponding recipient account, and distributes the plurality of recipient data sets to the corresponding plurality of recipients.

21. The system of claim 20, wherein the hierarchy includes parent classes and child classes, and wherein the program associates data sets associated with a parent class to child classes associated with the parent class, and further associates

data sets associated with the child classes associated with the parents classes to recipient accounts associated with the child classes.

22. The system of claim 21, further comprising a distribution control file stored on the computer storage medium, the distribution control file storing the
5 association of data sets to selected classes and selected recipient accounts.

23. The system of claim 22, wherein the program is configured to access the distribution control file and create the plurality of recipient data sets by associating data sets associated with a selected class to the recipient accounts associated with the selected class as specified in the distribution control file so that each recipient data set
10 includes only data sets associated with each corresponding recipient account, and distribute the plurality of recipient data sets to the corresponding plurality of recipients.

24. The system of claim 23, wherein the program distributes the data sets upon an occurrence of an user-defined event.
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25. The system of claim 24, wherein one of the data sets has a change status, the change status indicating whether a change in the data set has occurred since a previous distribution of the data set, and wherein the program distributes the data set upon the occurrence of the user-defined event only if the change status indicates a change in the data set has occurred.
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26. The system of claim 20, further comprising a transaction file stored on the computer storage medium, the transaction file storing a transaction history of the distribution of data sets.

27. The system of claim 26, wherein the program is further configured to access the transaction file and determine the distribution frequency of each data set.
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28. The system of claim 27, further comprising a distribution control file stored on the computer storage medium, the distribution control file storing the association of data sets to selected classes and selected recipient accounts, and wherein the program is further configured to update the distribution control file to include an association of a data set to selected classes and selected recipient accounts
30 if the distribution frequency of the data set to the selected classes and recipient accounts exceeds a threshold value.

29. The system of claim 28, wherein the program is configured to access the distribution control file and create the plurality of recipient data sets by associating

data sets associated with a selected class to the recipient accounts associated with the selected class as specified in the distribution control file so that each recipient data set includes only data sets associated with each corresponding recipient account, and distribute the plurality of recipient data sets to the corresponding plurality of

5 recipients.

30. The system of claim 29, wherein the program distributes the recipient data sets upon an occurrence of an user-defined event.

31. The system of claim 30, wherein one of the data sets has a change status, the change status indicating whether a change in the data set has occurred since
10 a previous distribution of the data set, and wherein the program distributes the data set upon the occurrence of the user-defined event only if the change status indicates a change in the data set has occurred.

32. The system of claim 21, wherein the data structure further includes for each class a class node and a recipient node, each class node referencing a child class,
15 and each recipient node referencing a recipient account.

33. The system of claim 32, wherein the program is further configured to associate data sets with corresponding class nodes and recipient nodes.

34. The system of claim 33, wherein the program is further configured to associate each data set associated with each class node to each corresponding classes
20 referenced by the class node, and associate each data set associated with each recipient node to the each corresponding recipient account referenced by the recipient node.

35. A method of e-mailing files, comprising the steps of:
associating a first file with a class of recipients;
associating a second file with one recipient in the class;
25 creating a data set for each recipient in the class, wherein only the data set corresponding to the one recipient includes the second file; and
distributing the data sets to the recipients.

36. The method of claim 35 further including the step of creating a hierarchy of classes including the class.

30 37. The method of claim 36 wherein the step of associating the first file includes defining recipients of the first file to include all recipients in the class and all recipients in any subordinate classes related to the class in the hierarchy.

38. The method of claim 36 wherein the classes in the hierarchy are arranged in a parent-child relationship.

39. The method of claim 35 further including the step of defining an event, the step of distributing the data sets corresponding to an occurrence of the event.

5 40. The method of claim 39 wherein the data sets are distributed upon every occurrence of the event.

41. The method of claim 36 further including the step of automatically associating a file with a recipient if the file has been distributed to the recipient at a frequency that exceeds a predetermined distribution frequency threshold.

10 42. The method of claim 36 wherein the step of distributing the data sets includes the step of compressing the data sets.

43. The method of claim 36 wherein the step of distributing the data sets includes the step of sending a single e-mail to each recipient including a data set corresponding to the recipient.

15 44. The method of claim 36 further including the step of copying the first file to recipient accounts respectively corresponding to the recipients in the first class.

45. The method of claim 44 further including the step of copying the second file to the recipient account corresponding to the one recipient.

20 46. A program for distributing files to recipients connected by a network, comprising:

code for defining a class of recipients;

code for associating a first file with the class of recipients;

code for associating a second file with one recipient in the class;

25 code for creating a data set for each recipient in the class, wherein only the data set corresponding to the one recipient includes the second file; and

code for distributing the data sets to the recipients.

47. The program of claim 46 further including code for creating a hierarchy of classes including the class of recipients.

30 48. The program of claim 47 wherein the code for associating the first file defines recipients of the first file to include all recipients in the class and all recipients in any subordinate classes in the hierarchy related to the class.

49. The program of claim 47 wherein the classes in the hierarchy are arranged in a parent-child relationship.

50. The program of claim 36 wherein the code for distributing the data sets is executed upon the occurrence of a user-defined event.

51. The program of claim 40 wherein the data sets are distributed upon every occurrence of the event.

5 52. The program of claim 46 wherein the code for associating the first file and the second file automatically associates one of the first file and the second file with a recipient if the one file has been distributed to the recipient at a frequency that exceeds a predetermined distribution frequency threshold.

10 53. The program of claim 46 further including code for compressing the data sets for distribution.

54. The program of claim 46 wherein each data set is distributed as a single e-mail to a corresponding recipient.

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